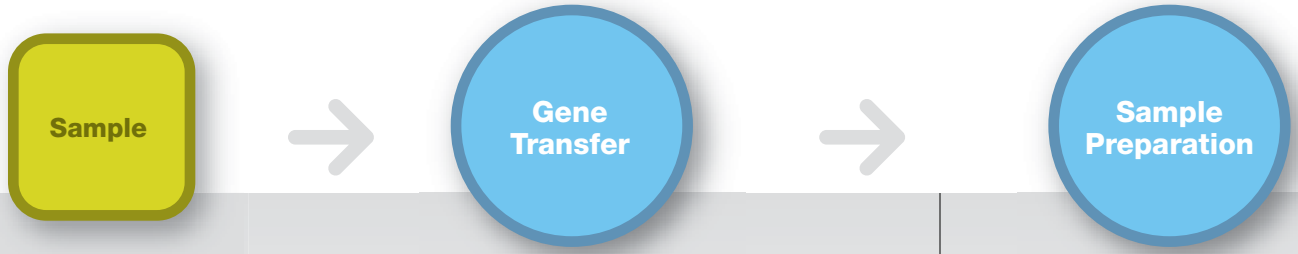


# Gene Modulation



## Description

Transformation of plant, animal, or bacterial cells with recombinant DNA or RNA via chemical transformation, electroporation, or biolistic particle delivery

Purification of nucleic acid and/or protein from cells

## Applications

- Lipid-mediated modulation and protein and lipid profiling
- Lipid-mediated modulation and nucleic acid profiling
- Electroporation and protein and lipid profiling
- Electroporation and nucleic acid profiling
- Biolistic particle delivery and protein and lipid profiling
- Biolistic particle delivery and nucleic acid profiling

## Technologies

Lipid-mediated transfection  
siRNA or shRNA design

Electroporation

Biolistic particle delivery

Protein sample preparation

Nucleic acid sample preparation

## Related Products



TransFectin™ lipid reagent  
siLentFect™ lipid reagent for RNAi  
siLentMer™ validated Dicer-substrate siRNA duplexes  
Gene Pulser Xcell™ electroporation system  
MicroPulser™ electroporator  
Gene Pulser®/MicroPulser cuvettes  
Helios® gene gun system  
PDS-1000/He™ system



ReadyPrep™ 2-D cleanup kit  
ReadyPrep protein extraction kit (total protein)  
Aurum™ total RNA kits  
Quantum Prep® plasmid miniprep kit  
AquaPure™ genomic DNA isolation kit

## Detection and Analysis

Detection and analysis of nucleic acid and/or proteins

### Protein

Automated protein electrophoresis  
Protein electrophoresis  
Protein blotting  
2-D electrophoresis  
Microarray analysis  
Image analysis

### Nucleic Acid

Automated nucleic acid electrophoresis  
Nucleic acid electrophoresis  
Nucleic acid blotting  
Quantitative PCR (qPCR)  
Microarray analysis  
Image analysis

## Profiling and Quantitation

Protein and/or nucleic acid profiling via quantitative and qualitative methods

### Protein

Microarray analysis  
Multiplex suspension array technology — protein  
Protein interaction analysis  
Automated protein electrophoresis  
Protein electrophoresis  
Protein blotting  
2-D electrophoresis  
Image analysis  
Data analysis and bioinformatics

### Nucleic Acid

Microarray analysis  
Multiplex suspension array technology — nucleic acid  
Nucleic acid sequencing  
Automated nucleic acid electrophoresis  
Nucleic acid electrophoresis  
Nucleic acid blotting  
Quantitative PCR (qPCR)  
Image analysis  
Data analysis and bioinformatics

## Phenotype

Introducing DNA and RNA into cells is a powerful tool for evaluating gene expression and modulation. From competent cells to gene transfer products to detection and profiling tools, Bio-Rad offers a wide selection of products for gene modulation of bacterial, plant, fungal, and animal cells. For more information, visit us on the Web at [www.bio-rad.com/genetransfer/](http://www.bio-rad.com/genetransfer/) or at [www.bio-rad.com/genomics/](http://www.bio-rad.com/genomics/)



PROTEAN® IEF system  
Mini-PROTEAN® Tetra cell  
Zeta-Probe® membranes  
MiniOpticon™ two-color real-time PCR system  
iQ™5 multicolor real-time PCR detection system  
Molecular Imager® Gel Doc™ XR system  
Experion™ automated electrophoresis system  
BioOdyssey™ Calligrapher™ miniarrayer




Trans-Blot® SD semi-dry transfer cell  
Bio-Plex® 200 system with HTF  
Sequi-Gen® GT system  
ProteOn™ XPR36 protein interaction array system  
BioOdyssey Calligrapher miniarrayer  
MiniOpticon two-color real-time PCR system  
iQ5 multicolor real-time PCR detection system

## Gene Modulation

Sample > Gene Transfer > Sample Preparation > Detection and Analysis > Profiling and Quantitation > Phenotype

For a complete list of products and related product information, refer to the 2006/2007 catalog, visit us on the Web at [www.bio-rad.com](http://www.bio-rad.com), or contact your local Bio-Rad representative.

### Ordering Information

Catalog #	Description	Catalog #	Description
<b>Gene Transfer</b>			
170-3351	<b>TransFectin Lipid Reagent</b> , 1.0 ml	700-7000	<b>Experion System</b> , for protein analysis (analysis kits sold separately)
170-3360	<b>siLentFect Lipid Reagent for RNAi</b> , 0.5 ml	700-7001	<b>Experion System</b> , 100–120 V, for RNA analysis (analysis kits sold separately)
Varies	<b>siLentMer Validated Dicer-Substrate siRNA Duplexes</b> , 2 nmol, designed with proven criteria and functionally tested for ≥85% silencing	700-7002	<b>Experion System</b> , 220–240 V, for RNA analysis (analysis kits sold separately)
Varies	<b>siLentMer Predesigned Dicer-Substrate siRNA Duplexes</b> , 2 nmol, designed with proven criteria	169-2000	<b>BioOdyssey Calligrapher MiniArrayer</b> , 115 V
174-9950	<b>siLentMer Delivery Optimization Kit</b> , includes 1.0 nmol fluorescently labeled siLentMer nonsilencing siRNA, 0.2 ml siLentFect lipid reagent, 1.0 ml siLentMer siRNA resuspension buffer	169-2100	<b>BioOdyssey Calligrapher MiniArrayer</b> , 230 V
Varies	<b>siLentMer Total Control Kits</b>	169-2200	<b>BioOdyssey Calligrapher MiniArrayer With Cooling Module</b> , 115 V
165-2660	<b>Gene Pulser Xcell Total System</b> , for mammalian and microbial cells	169-2300	<b>BioOdyssey Calligrapher MiniArrayer With Cooling Module</b> , 230 V
165-2100	<b>MicroPulser Electroporator</b>	<b>Profiling and Quantitation</b>	
165-2088	<b>Gene Pulser/MicroPulser Cuvettes</b> , 0.4 cm gap, 50	170-3940	<b>Trans-Blot SD Semi-Dry Electrophoretic Transfer Cell</b>
165-2431	<b>Helios Gene Gun System</b> , 100/120 V	171-000201	<b>Bio-Plex 200 System</b>
165-2432	<b>Helios Gene Gun System</b> , 220/240 V	171-000205	<b>Bio-Plex 200 System With HTF</b> , includes high-throughput fluidics (HTF)
165-2257	<b>PDS-1000/He System</b>	176-0100	<b>ProteOn XPR36 Protein Interaction Array System</b>
<b>Sample Preparation</b>		Varies	<b>ReadyStrip™ IPG Strips</b>
163-2130	<b>ReadyPrep 2-D Cleanup Kit</b> , 50 preps	Varies	<b>Criterion™ Precast Gels</b>
163-2086	<b>ReadyPrep Protein Extraction Kit (Total Protein)</b> , 20 preps	164-5050	<b>PowerPac Basic Power Supply</b>
732-6800	<b>Aurum Total RNA 96 Kit</b> , 2 x 96-well preps	165-3860	<b>Sequi-Gen GT System</b> , 21 x 40 cm
732-6100	<b>Quantum Prep Plasmid Miniprep Kit</b> , 100 preps	165-3861	<b>Sequi-Gen GT System</b> , 21 x 50 cm
732-6340	<b>AquaPure Genomic DNA Isolation Kit</b> , for cultured cells and gram-negative bacteria	165-3862	<b>Sequi-Gen GT System</b> , 38 x 30 cm
732-6343	<b>AquaPure Genomic DNA Tissue Kit</b> , for animal and plant tissues, cultured cells, and gram-negative bacteria	165-3863	<b>Sequi-Gen GT System</b> , 38 x 50 cm
<b>Detection and Analysis</b>		170-9300	<b>FPQuest™ Software</b>
165-4000	<b>PROTEAN IEF System</b> , 90–240 VAC	Varies	<b>InfoQuest™ FP Software</b>
165-8000	<b>Mini-PROTEAN Tetra Cell</b> , 10-well, 0.75 mm thickness; 4-gel system	siLentMer products are manufactured by Integrated DNA Technologies, Inc. (IDT) and are for research use only. For custom siRNA synthesis, contact IDT.	
170-3930	<b>Mini Trans-Blot Electrophoretic Transfer Cell</b>	Biolytic technology is covered by patents owned by E.I. du Pont de Nemours and Co. The technology is exclusively licensed to Bio-Rad Laboratories, Inc.	
Varies	<b>Zeta-Probe® GT Membranes</b>	Bio-Rad's real-time thermal cyclers are licensed real-time thermal cyclers under Applera's United States Patent No. 6,814,934 B1 for use in research and for all other fields except the fields of human diagnostics and veterinary diagnostics.	
Varies	<b>Zeta-Probe Membranes</b>	Certain arrays and/or the method of preparation, analysis, or use may be covered by patents or other intellectual property rights owned by third parties.	
CFB-3120	<b>MiniOpticon Real-Time PCR System</b> , includes optical housing, MJ Mini™ thermal cycler, analysis software	 LabChip and the LabChip logo are trademarks of Caliper Life Sciences, Inc. Bio-Rad Laboratories, Inc. is licensed by Caliper Life Sciences, Inc. to sell products using the LabChip technology for research use only.	
CFD-3121	<b>MiniOpticon Real-Time PCR Detector</b> , for MJ Mini cycler upgrade	The Bio-Plex suspension array system includes fluorescently labeled microspheres and instrumentation licensed to Bio-Rad Laboratories, Inc. by the Luminex Corporation.	
170-9780	<b>iQ5 Multicolor Real-Time PCR Detection System</b> , includes iCycler base, optics module, software CD-ROM, 5 installed filter sets, 96-well reaction module, calibration solutions, optical-quality 96-well PCR plates, Microseal 'B' seals, communication cables, power cord, quick reference cards, instructions		
170-8170	<b>Molecular Imager Gel Doc XR System</b> , PC, includes Quantity One software		
170-8171	<b>Molecular Imager Gel Doc XR System</b> , Mac, includes Quantity One software		

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